

Candy Crane Claw Machine

Team 3701A

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Why I'm Taking it apart

I am taking it apart because claw does not go up and down. Makes grinding noises when it was stuck.

Take it apart



Steps to take it apart

1. Remove screws

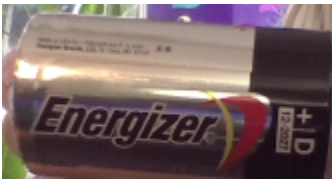
I removed the screws on the lid.

2. To get the claw mechanism out.

I removed the screws that holds it on. Here I noticed it uses gears to move back and forth, I also noticed it uses switches to tell it to stop moving forwards and backwards when it gets to the edge.



3.To remove the batteries.

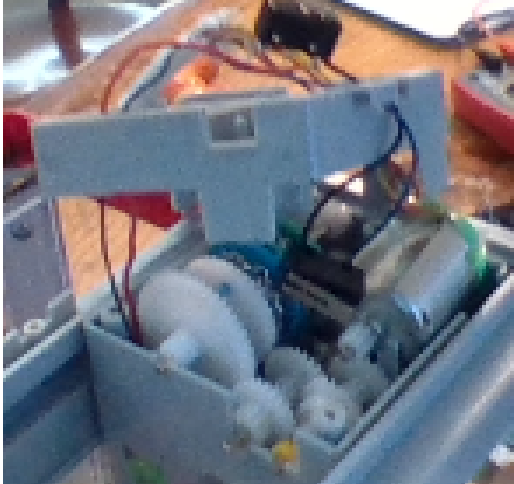


It used 3 of these batteries

4.Remove the cover that the chan goes in.It looks like I am going to need to take the top switch off to get access to a screw.



5.To take apart the gear box.I unscrewed 3 screws to get the top part off.



6. Put all the gears back together and in the right spot.
I think I found the problem, that the idler gear popped out of the socket.
Placed the idler gear back by sliding it in place with my hand.
7. I screwed the top of the gearbox back on while being careful to keep all the gears in the right spot.
8. Screw the gearbox lid back on.
9. Put the outside wires back in place how they were.
10. Put the batteries back in.
11. TEST!!!!
12. Something went wrong, still not moving up and down.
13. unscrew everything again, checked all gears by moving them with my hand. It all seemed to work fine.
14. A second test while it was still open shows it works.
15. Put it all back together.
16. IT WORKS!!!!



Identifiable parts

Gears - To move the crane

Switches - To prevent it from breaking itself

Wires - To connect the switches and motors

What did I learn?

I learned about gear ratios and how they relate to all kinds of real world things, not just vex robotics. I learned how they used switches to stop the crane from moving and breaking itself. Best of all I learned that candy tastes better when it comes from a candy crane you fixed yourself.